

REMARKS

By this response, claims 1-35 are pending. Compared to prior versions, all claims (other than 20 and 35) remain as originally or previously presented. Claim 20 is amended to change “computer device” to “computing device” to fix its antecedent basis problem as correctly noted by the Examiner in his objection. Claim 35 is new and rewrites the subject matter of allowed claim 34 in independent claim for the Examiner’s approval. Also, the Applicant notes and appreciates the indication of allowance regarding other claims i.e., claims 8-16. It is agreed they define over the art of record.

Substantively, all independent claims and many of the dependent claims are rejected as anticipated by Neufeld, U.S. Patent No. 6,167,538. A few dependent claims are also rejected as obvious in further view of Nguyen, U.S. Patent No, 6,825,941. In that the dependent claims can stand or fall with the independent claims, for the purposes of this response, the Applicant presents no discussion of Nguyen.

Turning to the merits, Neufeld indeed teaches monitoring of hardware or software components of a computing system. In a representative embodiment, a performance monitor 126 is “generally a program which can be an independent program or embedded in another program (e.g., process), but could also be provided in hardware (e.g., an ASIC)” and is installed on or associated with a computer system, such as element 100. *Col. 5, ll. 50-53*. In function, it “monitor[s] the performance of different events or data supplied by the drivers that are active on the computer system 100.” *Col. 5, ll. 55-56*. In a traditional sense, “the drivers that are active on the computer system 100 are not fixed and either arrive or depart in accordance with a user's hot-plugging or unplugging of the associated hardware device. The same effect occurs when the driver or the associated hardware device itself fails. For software resources, the programs or processes are active on the computer system 100 when they are executing.” *Col. 5, ll. 57-63*.

In other words, the drivers associated with hardware devices either “arrive or depart”

on the computing device when hot-plugging or -unplugging the hardware device with the computing device. That is not to say, however, that the drivers arrive or depart on the computing device upon steps of monitoring and/or detecting events related to the end of persistence, and then fully automatically removing them based on the detection, as required by the claims. Instead, the drivers of Neufeld arrive and depart as a rote process as they are plugged-and-played with their attendant peripheral devices. In still other words, no monitoring and/or detection of an event related to the end of persistence of the peripheral device is ever required because as soon as peripheral device is unplugged, its driver departs. Conversely, as soon the peripheral device is plugged, its driver arrives. Because no scenario is then ever contemplated for keeping a driver installed on a computing device, while the peripheral devices is connected and unconnected from the computing device, and then later removing it upon the monitoring and detection of an event related to the end of persistence, the teaching cannot, by law, anticipate.

While this point is subtle, it cannot be emphasized enough. Neufeld teaches drivers that come and go on a computing device upon plugging and un-plugging of related hardware. They do not, and cannot, remain on the computing device if the hardware is unplugged. Instead, they are removed upon removal of the hardware and cannot meet the limitation of “wherein the monitoring and the fully automatically removing support information occurs regardless of whether the computing device is networked or maintains a network connection,” for example. Of course, the claims also require other limitations not found in Neufeld as seen below in representative claim 1:

- receiving an indication of an end of persistence for a peripheral device regardless of whether the peripheral device is connected to the computing device;
- by the computing device, monitoring for an event related to the end of persistence; and
- by the computing device, fully automatically removing support information associated with the peripheral device based

on detection of the event related to the end of persistence, wherein the monitoring and the fully automatically removing support information occurs regardless of whether the computing device is networked or maintains a network connection.

Turning to Neufeld's Figure 4A, it is clear that the driver processing 400 of the figure is that which is "performed by a driver when interacting with a performance monitor [e.g., # 126] to provide performance monitoring of the hardware resource associated with the driver." *Col. 7, ll. 48-51*. In form, the "driver processing 400 is, for example, the processing performed by the driver 214 illustrated in FIG. 2." *Col. 7, ll. 51-53*.

To begin the overall monitoring, the driver is "activated" upon the connection of hardware resource to a computer system, e.g., the afore-mentioned plug-and-play. In further detail, "the driver is activated ... when a hardware resource (e.g., PCMCIA card, peripheral device, network card) is connected to a computer system, a driver associated with that hardware resource is normally automatically activated." *Col. 7, l. 64 - col. 8, l. 1*. Upon activation, the driver performs the process of notifying the performance monitor of its presence. *Col. 8, l. 3*. It then also "triggers the sending of a registration request" between the driver and performance monitor, whereupon the performance monitor registers the driver. *Col. 8, ll. 4-6*. Sometime thereafter,

a decision block 404 determines whether the driver has been shut down. If the decision block 404 determines that the driver has been shut down, an unregister message is sent 406 to the performance monitor. The unregister message informs the performance monitor that the driver is no longer active and that its prior registration with the performance monitor should be removed. As an example, the driver is shut down when the hardware resource associated with the driver is powered-off, fails or otherwise disconnected from the computer system. Following block 406, the driver processing 400 is complete and ends. *Col. 8, ll. 9-19*.

Nowhere, however, does this passage suggest that the driver itself is removed from the computing device on which it is installed. Rather, it states the driver “is no longer active” and the back-and-forth communication of “registration information” between the driver [e.g., # 214] and the performance monitor [e.g., # 126] is no longer valid and the prior registering of the driver with the performance monitor is that which “should be removed.” Stated differently, the driver first registers itself with the performance monitor so that the information about the hardware associated with the driver can be made known to the performance monitor. However, upon the “inactivation” of the driver, the registration, not the driver, is that which should be removed.

Importantly, this teaching does not meet the claim limitation:

by the computing device, fully automatically removing support information associated with the peripheral device based on detection of the event related to the end of persistence, wherein the monitoring and the fully automatically removing support information *occurs regardless of whether the computing device is networked or maintains a network connection.*¹

As is clear, the claim requires that the full automatic removal of support information associated with the peripheral device is “based on detection of the event related to the end of persistence,” previously “monitored” for by the computing device. Keep in mind, the Neufeld teaching cares whether the performance monitor can learn or observe things about the peripheral device, associated with the driver in which it is communicating, so that “user[s] interacting with the monitoring program [are] able to monitor the operation of the component by analyzing the various behavioral data it receives from the component.” *Col. 4, ll. 18-21*. Neufeld cares not, on the other hand, whether or not drivers are installed on a

¹ This claim selection comes from claim 1. Naturally, the precise limitations of each claim control its scope, but generally the argument can be advanced across all independent claims. For brevity, the argument is not repeated for the other independent claims.

computing device. Rather, they come and go with the hot-plugging and -unplugging of the hardware, and are a tool for the performance monitor 126 to communicate with the hardware. Thus, no need exists to monitor for the end of persistence of hardware, detect it and then remove drivers, as the claims require. In turn, no teaching exists regarding the monitoring of the events related to the end of persistence of the hardware, but the monitoring of whether the driver is present, or not, so that communications between it and the performance monitor 126 can take place, or not. For at least this reason, the claims define over the art of record.

The Applicant submits all claims are in a condition for allowance and requests a timely Notice of Allowance to be issued for same. *To the extent any fees are due beyond those expressly authorized in the accompanying transmittal forms for the extra claim, the undersigned authorizes their deduction from Deposit Account No. 11-0978. Finally, the Applicant requests a change in the attorney document number of record. Namely, please replace 971-150 with 1363-010.* The docket number changed when the most recent Power of Attorney went into effect.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MAIL STOP Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 4, 2007

